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TO: EACH SUPERVISOR

FROM: P. MICHAEL FREEMAN

**FIRE DEPARTMENT COMPUTER-AIDED  
DISPATCHING SYSTEM (CAD) INTERRUPTION**

The purpose of this memorandum is to advise your Board about an interruption of the Department's Computer-Aided Dispatching (CAD) System that occurred last week, and the Department's response to this event.

**CAD System Interruption**

On July 4, 2002, at 9:10 p.m., the Fire Department's 911 CAD System at the Fire Command and Control Facility stopped functioning. In response to this system interruption, we immediately implemented manual dispatch procedures, and simultaneously began diagnosing the cause of the interruption with our internal system staff and our CAD contract system staff.

When the CAD System is interrupted, routine manual dispatch is usually sufficient to process emergency calls. However, due to the very high volume of calls associated with the July 4<sup>th</sup> holiday, Command Staff implemented our "Mode 4" manual dispatching procedures. Mode 4 transfers dispatch responsibility from the Fire Command and Control Facility to the 20 on-duty battalion chiefs, who were temporarily assigned to the various Public Safety Answering Points (PSAP's) within their jurisdictions. Mode 4 dispatching was effectively managed throughout this event and emergency responses were handled with little or no delay. There were no emergency calls missed during this period of time.

**CAD Restoration**

Through a joint effort of Fire Department technical staff and CAD contract vendor, the CAD System was restored three hours and five minutes later at 12:15 a.m. on July 5th. Command staff then took action to transfer all dispatch operations from Mode 4 back to the Fire Command and Control Facility, completing the full transfer to normal operations at 1:30 a.m. The CAD System has functioned without any problems since then.

### **Cause of the Interruption**

Almost immediately, technical staff suspected that the CAD interruption was caused by the "corruption" of a critical data file. Based on this analysis, a restart procedure began and the system became operational early on July 5<sup>th</sup>. On July 9<sup>th</sup>, the CAD contract vendor identified the specific software coding error that caused the problem, and the correction to the software is planned to be implemented early July 11<sup>th</sup>. This error was apparently made in the initial programming of the system back in 1990, and only surfaced due to a unique set of data being processed by the system. The cost of this corrective action is included in the Department's annual contract with the CAD vendor.

### **CAD Follow-up Action**

The CAD System has historically been very stable and reliable. In 12 years of system operation, this particular system error occurred only one other time in 1994. Although we are confident that this problem has been resolved, our technical staff has been working around the clock to closely monitor CAD performance. We have also learned valuable lessons that should enable us to restart CAD much quicker in the future if similar circumstances occur again. We are also analyzing our current back-up systems and manual dispatch procedures to determine if any changes are warranted. Any necessary upgrade of the back-up systems will be a relatively minor cost (less than \$5,000) and will be covered under our current CAD contract.

Throughout this event, the performance of Fire Department staff including dispatchers, technical staff, and field commanders was exemplary. Along with the Duty Deputy Chief and a Chief Deputy, I personally went to the Fire Command and Control Facility the evening of July 4<sup>th</sup> and into the early morning hours of July 5<sup>th</sup> to assist in managing our response to this interruption. On July 5<sup>th</sup>, I advised our Departmental Chair, Supervisor Yaroslavsky, of the CAD interruption, and indicated I would provide a full report on this issue once we had more definitive information, which is included in this report.

If you have any questions regarding this problem or our response to it, please call me at (323) 881-2401.

PMF:at

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